

The treatment of these cases is briefly discussed. The success of therapy depends, according to the author, almost altogether on how soon treatment can be begun after the onset of neurological symptoms.

Endamoeba Dysenteriae in Hodgkin's Disease.—KEFOID and SWEZY (*Jour. Am. Med. Assn.*, 1922, 78, 1604) report a case which clinically and pathologically resembled Hodgkin's disease. In the enlarged glands of this patient the authors found cells which they regard as amœba, probably *Endamoeba dysenteriae*. They base this interpretation on the structure of the nucleus of this cell, particularly as it appeared during mitosis. The most important evidence adduced is the numerical contrast between the number of chromosomes believed to be normal for human cells and the number observed in the abnormal cells. The latter number corresponds to that observed in amœbas. The authors suggest the possibility of Hodgkin's disease being amœbiasis of the lymphatic system.

Amœbiasis of the Bones.—KEFOID and SWEZY (*Jour. Am. Med. Assn.*, 1922, 78, 1602), on similar grounds to those described above, believe that certain amœboid cells found in the bone-marrow in cases of arthritis deformans are true amœbas, and they suggest the inference that the organism may be the etiologic factor in Ely's second or non-bacterial type of arthritis deformans.

SURGERY

UNDER THE CHARGE OF

T. TURNER THOMAS, M.D.

ASSOCIATE PROFESSOR OF APPLIED ANATOMY AND ASSOCIATE IN SURGERY IN THE UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE PHILADELPHIA GENERAL AND NORTHEASTERN HOSPITALS AND ASSISTANT SURGEON TO THE UNIVERSITY HOSPITAL.

Decapsulation of the Kidneys in Bright's Disease.—SANDERSON-WELLS (*British Med. Jour.*, December 3, 1921, p. 940) says Edebohl's principles were attacked by physiologists upon these grounds: That the renal arteries are end-arteries and terminal; that the blood supply from the capsule is insignificant; that renal tissue once destroyed does not regenerate; and that chronic nephritis is the local expression of a general disease and a cure must remove the cause. Experimental work upon animals showed that a new capsule was formed in a few weeks thicker and denser than the normal capsule; that there were fewer vessels in the new than in the old. Injections were made into the renal arteries and the aorta with the renal arteries tied. The general opinion as to the result of these experiments was that there was but slight communication. Stursburg, however, found on injecting into the aorta with the renal artery tied that the injection penetrated even to the papillæ. Although the outlook appears disappointing from physiological and pathological aspects, the clinical case reports are excellent.

The uremic patient has been restored to consciousness, while suppression of urine and edema disappear. Patients apparently doomed have returned to work; many have subsequently been pronounced cured by high authorities. The operation therefore deserves consideration under two conditions: First, as an emergency in eclampsia, uremia and suppression of urine; the more desperate the extremity the more certainly it should be discussed; and second, in chronic cases when medical treatment has failed after a thorough trial. In both the above classes the heart and arteries should be reasonably sound, which probably means that most success will be obtained in the first half of life.

The Surgeon as a Pathologist.—BOND (*British Med. Jour.*, December, 1921, p. 973) says that a capacity to elaborate a substance or substances closely allied to, if not identical with, glycogen is possessed by leukocytes, myelocytes, and certain epithelial cells. In the case of the white blood cells, this capacity is in the main limited to the polymorpholeukocytes when they emigrate or escape from the blood stream. In the emigrated leukocyte this glycogenic substance takes the form of a colloid liquid which is rapidly exuded from the cell and gives a delicate mauve color with iodine. In the myeloid cells of the red marrow and in some myeloma cells this substance is also present and is somewhat evanescent. In certain epithelial cells of the mucous membranes which line the orifices of the digestive, respiratory and genito-urinary canals this iodophil substance is present in a more granular and less soluble form. It is more closely incorporated with the cell cytoplasm and stains a red or red-brown color with iodine. The same or an allied substance is also constantly found in certain cancer cells of epithelial origin. In the primary growth it is present in the cells which form the cell nests. In common with the irregular growth of the epithelial cells in the cancer area the disposition of the iodophil cells also undergoes a change. These are reduced in number and are collected in irregular groups rather than in stratified layers. This iodophil substance is also present in the epithelial cancer cells found in the lymph glands and in other secondary deposits. The presence of this capacity for elaborating iodophil substances by cancer cells in secondary deposits is an indication of the retention of some degree of original function by these cells in their abnormal situation and is associated with important problems of cell heredity.

The Treatment of Gastric Ulcer.—MOYNIHAN (*British Med. Jour.*, February 11, 1922, p. 267) says that medical treatment if properly carried out for a sufficiently prolonged period, should enable an ulcer to heal. The need for surgical treatment is a confession that such treatment is unattainable or has failed. The procedures that have been adopted are as follows: Gastroenterostomy; excision of the ulcer; gastroenterostomy combined with excision; gastroenterostomy combined with destruction of the ulcer by cautery (D. C. Balfour's operation); median resection of the stomach (sleeve resection); gastroenterostomy combined with jejunostomy; and partial gastrectomy. This last operation has been most satisfactory for the author. In gastrectomy the mortality in his hands has been 2 per cent. The quality of recovery is excellent. Secondary operation was necessary only once in a series of ten years' duration. There has only been one

unsatisfactory result in this group of 118 cases, a young woman from whom the author removed the stomach for chronic ulceration of the lesser curvature. A group of tuberculous mesenteric lymph nodes were also taken out. Since operation intermittent attacks of diarrhea have occurred with temporary wasting. In none has there been the development of carcinoma or a return of ulceration.

Epididymitis and Suprapubic Prostatectomy.—WHITE (*Lancet*, February 18, 1922, p. 321) says that inflammatory changes in the epididymis as a result of prostatectomy are the rule, for 82 per cent of cases studied gave this result. Five degrees of inflammation were recognized ranging from mere thickening of the epididymis to pus formation involving the adjoining testicle in slough. The inflammation may be unilateral or bilateral. It is generally more advanced in one side than the other. The amount of sepsis in the prostatic cavity is a very important point in determining the degree of epididymitis, for the prostatic cavity is cup shaped with very imperfect drainage. Moreover the torn ends of the ejaculatory ducts in the posterior wall of the cavity are continuously in contact with infected material.

Aberrant Adenoid Cystic Epitheliomas.—JOHNSTON (*Ann. Surg.*, 1922, 75, 331) says that adenoid cystic epitheliomas of the salivary gland type occurring in the tissues of the mouth and face are not as uncommon as the literature would indicate. Such neoplasms have been reported but not properly recognized and histologically interpreted. The tendency is to regard them as sarcomas. To this fact may be attributed some startling surgical cures. The characteristic tumor has slight malignant properties. Therefore it does not ulcerate and invade in its early stage. Radium treatment has been entirely successful in these cases.

Pathology of Lung Suppuration.—ASCHNER (*Ann. Surg.*, 1922, 75, 321) says that lung suppurations may be divided into bronchiectasis, a general disease of the bronchi in one or more lobes (bronchiectatic abscess is a localized suppurative process in the course of a bronchus and thus far observed only in post-tonsillectomy cases), suppurative pneumonia, a diffuse purulent process. Certain interesting histological changes have been observed: metaplasia in bronchial epithelium; epithelial lining of bronchiectatic abscess and proliferation of smaller bronchioles and air passages resembling proliferation of bile passages in portal cirrhosis.

The Influence upon Toxicity and Trypanocidal Activity of Shaking Acid and Alkalinized Solutions of Arsphenamine and Solutions of Neoarsphenamine in Air.—SCHAMBERG, KOLMER and RAIZIS (*Am. Jour. Syph.*, 1922, 2, 1) say that the undue shaking of alkalinized solution of arsphenamine increases the toxicity; the shaking of such solutions is rarely necessary. The shaking of acid solutions of arsphenamine for one minute beyond the time necessary to effect solution is accompanied by a slight increase in toxicity. Ten minutes' extra shaking increases the toxicity still further. The shaking of solutions of neoarsphenamine for even such short periods as one minute is accompanied by a great increase in toxicity. Shaking for ten minutes enormously

increases the toxicity. It would appear from the studies of Roth and from those which the authors have conducted that neoarsphenamine should be dissolved with as little agitation and exposure to air as possible. The trypanocidal power of acid solutions of arsphenamine is considerably increased after one minute of shaking but is decreased after ten minutes' shaking. The trypanocidal power of alkaline solutions of arsphenamine is considerably increased at the end of one minute's shaking and the increase is still evident after ten minutes' shaking. The explanation of the increase in trypanocidal power is probably to be found in the formation of arsenoxide, which is known to exert a greater trypanocidal and spirocheticidal effect than arsphenamine. The shaking of solutions of neoarsphenamine is not accompanied by increase in trypanocidal effect.

Resection of the Lungs for Suppurative Infections.—LILIENTHAL (*Ann. Surg.*, 1922, 75, 257) says that chronic pulmonary suppurations wholly or partially of the bronchiectatic type are rarely curable without the extirpation of the pathological focus. The surgical removal of a single pulmonary lobe for chronic pus infection has a mortality of about 42 per cent. The danger is much greater when more than one lobe is infected or in the presence of other complications. Remissions of weeks or even months may occur spontaneously. Palliative operations may be followed by improvement, rarely by apparent cures. The commonest cause of the disease is infection due to aspiration of infected material during tonsillectomy. Radial operation should not be undertaken short of several months after the onset unless the disease is obviously spreading.

Malignancy in Exstrophy of the Bladder.—SCHOLL (*Ann. Surg.*, 1922, 75, 365) says that exstrophied bladders that are subject to constant irritation and trauma have an extensive glandular covering, the result either of metaplasia from the normal covering or of hyperplasia of glands in the mucosa. Such glandular structure often shows characteristics approximating malignancy. In nine cases of exstrophied bladder in which material for histologic study was available, two were definitely malignant and two showed a typical cellular formation varying markedly from the normal. In the reported cases of malignancy of exstrophied bladders which are relatively frequent the growths were adenocarcinomas. This glandular malignancy is the type that would develop from irritation and hyperplasia of glandular structures.

Sarcoma of the Long Bones.—MEYERDINO (*Surg., Gynec. and Obst.*, 1922, 34, 321) says that 35 per cent of the patients were inoperable or refused operation. In many instances, undoubtedly early diagnosis would have given the patients a chance for a cure. Thirty-two of the 35 patients who died had amputations. The most malignant sarcomata were the osteosarcomata. Eight of these patients lived seven months after operation on the average. Ten patients have died who had excision and cautery. Five died of pulmonary metastasis. The principal points to be decided before operating are malignancy, metastasis, and the extent of bone involved. With early diagnosis, with care to exclude patients with metastasis, and with the use of radium and Coley's toxin, prolongation of life may be looked for following operation.